AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated hereafter. [Use ~~strikethrough~~ for deleted matter (or double square brackets "[[]]" if the strikethrough is not easily perceivable, *i.e.*, "4" or a punctuation mark) and underlined for added matter.]

Claims:

1 – 21. (Canceled)

22. (Original) A method for determining a resonant frequency of lungs of a patient, comprising the steps of:

providing a chamber containing a fluid;

placing a hydrophone in said chamber;

causing acoustic vibrations at a first frequency and changing a frequency of said acoustic vibrations to a second frequency;

recording a first output of said hydrophone as said acoustic vibration frequency is increased;

computing a first transfer function of said first output;

placing a person in said chamber such that a body of the person is immersed in said fluid;

positioning said hydrophone near a chest area of the person;

causing acoustic vibrations at said first frequency and changing said frequency of said acoustic vibrations to said second frequency;

recording a second output of said hydrophone as said acoustic vibration frequency is increased;

computing a second transfer function of said second output;

plotting a ratio of said first transfer function to said second transfer function versus said frequency of said acoustic vibrations; and

identifying a maximum of said plot as a resonant frequency of said lung.

23 – 30. (Canceled)

31. (New) An apparatus for administering hydro-acoustic therapy for a patient, said device comprising:

a chamber having a volume of water, said chamber further comprising rigid walls defining a generally cylindrical chamber, wherein said chamber further comprises an orifice in a wall, said orifice covered by a flexible membrane;

a supporting structure in said chamber for permitting a person to sit in said chamber, partially submersed in said water, during treatment;

a hydrophone positioned near a chest of said person in said water, said hydrophone for monitoring a response of said person to said acoustic waves; and

a piston outside of said chamber directed to press against said membrane in order to cause said membrane to oscillate in periodic motion, said piston thereby generating acoustic waves in said water of said chamber, wherein said acoustic waves are low frequency vibrations.

32. (New) A method for determining a resonant frequency of lungs of a patient, comprising the steps of:

providing a chamber containing a fluid;

placing a hydrophone in said chamber;

causing acoustic vibrations in said fluid at a first frequency and changing a frequency of said acoustic vibrations to a second frequency;

processing a first output of said hydrophone as said acoustic vibration frequency is changed;

placing a person in said chamber;

positioning said hydrophone near the person;

causing acoustic vibrations in said fluid at a third frequency and changing said frequency of said acoustic vibrations to a fourth frequency;

processing a second output of said hydrophone as said acoustic vibration frequency is changed; and

comparing said first processed output to said second processed output such as to identify a resonant frequency of said lung.

33. (New) The method of claim 32, wherein said processing of said first and second output comprises normalizing said first and second outputs.

34. (New) The method of claim 33, wherein said normalizing comprises:

computing a first transfer function of said first output; and

computing a second transfer function of said second output.

35. (New) The method of claim 33, wherein said processing step further comprises filtering, amplifying, and digitizing said first and second outputs.

36. (New) The method of claim 34, wherein said comparing step comprises:

plotting a ratio of said first transfer function to said second transfer function versus said frequency of said acoustic vibrations; and

identifying a maximum of said plot as said resonant frequency of said lung.

37. (New) The method of claim 32, wherein said positioning step comprises placing said hydrophone in substantially the same position within said chamber as the hydrophone was placed when the person was not in the chamber.

38. (New) A method for the medical treatment of a person, said method comprising:

providing a chamber containing a fluid;

placing a person in said chamber such that a body of the person is immersed in said fluid;

determining a resonance frequency of a lung of said person;

introducing acoustic vibrations into said fluid, said acoustic vibrations having a frequency; and

sequentially adjusting the frequency of said acoustic vibrations between a first frequency and a second frequency, wherein one of said frequencies comprises said resonance frequency and the other of said frequencies comprises a frequency either greater than or less than said resonance frequency.

39. (New) The method of claim 38, wherein said first frequency comprises said resonance frequency and said second frequency comprises a frequency less than said resonance frequency.

40. (New) The method of claim 39, wherein said acoustic vibrations comprise an amplitude of about 158dB re 1μPa.

41. (New) The method of claim 40, wherein said sequential adjusting step comprises setting the frequency of said acoustic vibrations to a first frequency for about ten minutes and then setting the frequency of said acoustic vibrations to a second frequency for about 10 minutes.

42. (New) The method of claim 38, wherein said first frequency comprises a frequency less than said resonance frequency and said second frequency comprises said resonance frequency.

43. (New) The method of claim 42, wherein said acoustic vibrations comprise an amplitude of about 158dB re 1μPa.

44. (New) The method of claim 43, wherein said sequential adjusting step comprises setting the frequency of said acoustic vibrations to a first frequency for about ten minutes and then setting the frequency of said acoustic vibrations to a second frequency for about 10 minutes.

45. (New) The method of claim 38, wherein said first frequency comprises said resonance frequency and said second frequency comprises a frequency greater than said resonance frequency.

46. (New) The method of claim 45, wherein said acoustic vibrations comprise an amplitude of about 158dB re 1μPa.

47. (New) The method of claim 46, wherein said sequential adjusting step comprises setting the frequency of said acoustic vibrations to a first frequency for about ten minutes and then setting the frequency of said acoustic vibrations to a second frequency for about 10 minutes.

48. (New) The method of claim 38, wherein said first frequency comprises a frequency greater than said resonance frequency and said second frequency comprises said resonance frequency.

49. (New) The method of claim 48, wherein said acoustic vibrations comprise an amplitude of about 158dB re 1μPa.

50. (New) The method of claim 49, wherein said sequential adjusting step comprises setting the frequency of said acoustic vibrations to a first frequency for about ten minutes and then setting the frequency of said acoustic vibrations to a second frequency for about 10 minutes.

51. (New) The method of claim 50, wherein said placing step comprises immersing the person in said fluid such that a body of the person is fully immersed in said fluid below a neck area of the person.

52. (New) The method of claim 51, wherein said fluid comprises water.

53. (New) The method of claim 52, further comprising the step of positioning a monitoring device near a chest area of the person such that an effect of said acoustic vibrations on the person is monitored.

54. (New) The method of claim 53, wherein said monitoring device comprises a hydrophone.